Remarks

Prior to the referenced Office action, claims 14, 15, 17 and 19-29 were pending.

Claims 14, 15, 17 and 19 were rejected in the referenced Office action.

Claims 20-29 were allowed in the referenced Office action.

Claims 14 and 15 are canceled in this reply.

Claims 17, 19, 20-29 are currently pending.

Rejection of claims 14-15, 17 and 19 as being anticipated by Bennett et al. (US 4,413,406)

Claims 14 and 15 are canceled.

Applicants point out that Bennett applies a deposit (24) between adjacent surfaces of the amorphous metal sheets (12) before the sheets are brought together and heated (col. 3, lines 24-43) to form metal laminations for the core of a transformer. The deposit (24) bonds adjacent amorphous metal sheets together when the sheets are heated by heating means 29 to cause the deposit (24) to bond to the adjacent metal sheets (12) (col. 3, lines 44-61). Deposit (24) is selected from a group of metals or alloys that have a melting temperature with the range of 50°C. to 350°C (col. 5, lines 47-49). The deposit is applied as droplets in various patterns (col. 6, line 10, to col. 7, line 9; FIG. 2A through FIG. 2D). The deposit between adjacent sheets provides electrical insulation between adjacent sheets as required for transformer laminations.

Pending claim 17 is a method of bonding a bond metal sheet substantially comprising a bonding material to a base metal sheet. The claim recites the steps of placing a bond metal sheet adjacent to the base metal sheet to form an adjacently disposed base-bond sheet, and inductively heating the adjacently disposed base-bond sheet by passing the base-bond sheet through one or more induction coils to form a bonded sheet. No deposit material, as disclosed by Bennett, is used between adjacent sheets to bond the adjacent sheets together. Applicants submit that claim 17 is not anticipated by Bennett.

Pending claim 19 is a method of forming one or more bonded product that recites, in part, the steps of placing a bond metal sheet adjacent to a base metal sheet comprising a substantially electrically conductive composition to form an adjacently disposed base-bond sheet, inductively heating the base metal sheet by passing the adjacently disposed

base-bond sheet through one or more induction coils and melting the bond metal sheet from the heat of the inductively heated base metal sheet to bond the bond metal sheet to the base metal sheet to form a bonded base-bond sheet. A deposit material is not placed between the base and bond metal sheets as disclosed in Bennett for bonding of adjacent sheets; the bond metal sheet is melted to bond directly with the base metal sheet. Applicants submit that claim 19 is not anticipated by Bennett.

Rejection of claims 14 and 15 as being anticipated by Steiner et al. (US 6,770,380)

Claims 14 and 15 are canceled, making the rejection moot.

Rejection of claim 14 as being anticipated by Balla (US 3,941,643)

Claim 14 is canceled, making the rejection moot.

Rejection of claim 14 as being anticipated by Adcock et al (US 3,556,887)

Claim 14 is canceled, making the rejection moot.

Rejection of claims 17 and 19 as being unpatentable over Steiner in view of Chapman (US 2,367,715)

Steiner discloses bonding at least one resin sheet (26) to a metal (foil) sheet (22) that is temporarily attached to a metallic substrate (24) during a heat bonding process that bonds the resin sheet (26) to the metal foil sheet (22) (col. 7, lines 5-18). Metallic substrate (24) is temporally attached to the metal foil sheet (22) by an adhesive-like material (28) prior to the heat bonding process (col. 6, lines 56-67). The metallic substrate provides a heat source (by induction heating) to bond the resin to the metal foil sheet, and is not bonded to the adjacent metal foil sheet by induction heating. The metallic substrate is removed after the heat bonding of the resin to the metal foil sheet (col. 6, lines 6-10). The bonded resin/metal foil laminate is used in printed circuit boards and copper clad laminates. Steiner teaches using a removable metallic substrate in a heat bonding (curing) process of a non-metallic resin sheet (26) to metal sheet (22).

Chapman bonds a base metal strip (45, 52, 54, 55, 62, 83, 104, 110 or 113) to a cladding metal strip (46, 53, 56 and 57, 61, 63 and 64, 85 or 96) by induction heating the cladding metal strip and base metal strip prior to bonding the two strips together. Further, Chapman surrounds exclusively either the cladding metal strip (FIG. 3, FIG. 4, FIG. 5, FIG. 6, FIG. 7, FIG. 9, FIG. 11 FIG. 12, FIG. 15 and FIG. 16), or the base metal

strip (FIG. 8, FIG. 10, and FIG. 13) with an induction coil for induction heating of either strip.

Pending claim 17 is a method of bonding a bond metal sheet substantially comprising a bonding material to a base metal sheet. The claim recites the steps of placing a bond metal sheet adjacent to the base metal sheet to form an adjacently disposed base-bond sheet, and inductively heating the adjacently disposed base-bond sheet by passing the base-bond sheet through one or more induction coils to form a bonded sheet. As discussed above, Steiner does not inductively heat bond together two metal sheets; a resin is inductively heat bonded to a metal foil sheet; the metal foil sheet is attached to a metal substrate, but not inductively heat bonded to it. As discussed above, Chapman teaches pressure bonding of a cladding metal strip and a base metal strip after either the cladding or base metal strip has passed through an induction coil. Applicants submit it would not be obvious to combine the teachings of Chapman and Steiner, particularly since Steiner teaches removing the metal substrate after the metal foil has been inductively heat bonded to the resin. Applicants submit that claim 17 is not obvious over Steiner in view of Chapman.

Pending claim 19 is a method of forming one or more bonded products that recites, in part, the steps of placing a bond metal sheet adjacent to a base metal sheet comprising a substantially electrically conductive composition to form an adjacently disposed base-bond sheet, inductively heating the base metal sheet by passing the adjacently disposed base-bond sheet through one or more induction coils and melting the bond metal sheet from the heat of the inductively heated base metal sheet to bond the bond metal sheet to the base metal sheet to form a bonded base-bond sheet. As discussed above, Steiner does not inductively heat melt a bond metal sheet in a bonded base-bond sheet to bond the bond metal sheet to a base metal sheet. In Steiner a resin is inductively heat bonded to a metal foil sheet; the metal foil sheet is attached to a metal substrate, but not inductively heat bonded by melting, to the metal substrate. As discussed above, Chapman teaches pressure bonding of a cladding metal strip and a base metal strip after either the cladding or base metal strip has passed through an induction coil. Applicants submit it would not be obvious to combine the teachings of Chapman and Steiner, particularly since Steiner

teaches removing the metal substrate after the metal foil has been inductively heat bonded to the resin, and Chapman does not melt a bond metal sheet. Applicants submit that claim 19 is not obvious over Steiner in view of Chapman.

Applicants request allowance of all pending claims.

Respectfully submitted,

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